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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,089	05/19/2005	Peter Howlett	221842US2PCT	4452
22850	7590	05/26/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				SRIRAMAN, NIKHIL
ART UNIT		PAPER NUMBER		
		3664		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/089,089	HOWLETT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	NIKHIL SRIRAMAN	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 26 January 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 10-16 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 10-16 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

This is a non-final Office Action on the merits in response to communications filed by Applicant on January 26, 2010. Claims 10-16 are currently pending and are addressed below.

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.

- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The specification, which is a derivative of a PCT application that in turn is a derivative of a foreign application, currently contains no separate sections. Accordingly, Examiner has laid out the foregoing suggested specification arrangement.

### ***Claim Objections***

3. Claim 10 is objected to because of the following informalities: Line 16 recites "each the plurality of equipment units" that appears to have instead intended to state -- each of the plurality of equipment units--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Regarding claim 10**, line 16 recites "wherein each the plurality of equipment units further include a detection circuit..." The term "further" implies that the equipment units include other, previously introduced elements. However, nowhere earlier in the claim are any elements specified to be included in the equipment units. Accordingly, it is unclear if either the claim scope solely requires the equipment units to include a

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detection circuit or instead if the claim scope requires the equipment unit to contain some other element, such as "the monitoring unit."

**Regarding claim 15**, lines 3-4 recite "retains the group fault messages and the report on the overall state of the operation that were found by analyzing the labels of the messages." It is unclear how the "the detection circuit" can "retain the group fault messages" by merely analyzing such data. It may be that the label analysis leads to sorting, that in turns is how the data is stored. However, there must be a storage command of function that follows any data analysis in order for a circuit to "retain the group fault messages."

***Claim Rejections - 35 USC § 102 and 103***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10-16 are rejected under 35 U.S.C. 102(b) as anticipated by, or in the alternative under 35 U.S.C. 103(a) as being unpatentable over, Wotzak et al. (6,683,383) in view of Barsness (2004/0117443 A1).

**Regarding claim 10,** Wotzak et al. discloses a maintenance system (Fig. 1) comprising:

a plurality of equipment units each associated with a monitoring unit for monitoring the respective equipment unit (Figs. 1-2, item 28), the monitoring unit including,

a test unit (Fig. 2, item 38 via "module maintenance mode") for testing the respective equipment unit on proper operation and for issuing fault messages in a case when the testing indicates a failure of the respective equipment unit (Col. 4, lines 5-33 via "The MMN 38...to conduct pseudo-random tests autonomously" and "upon detection of a fault, the MMN 38 stores the test results..."), and

a non-volatile memory unit for storing at least the fault messages (Col. 4, lines 26-33 via "stores the test results in nonvolatile fault memory 42");

a central maintenance unit (Fig. 1, item 10) in communication with the test units of the plurality of equipment units (Fig. 1, item 14 and Fig. 2 via "maintenance bus"), the central maintenance unit including a diagnosis unit for checking a state of the plurality of equipment units by using the fault messages of the test units, and for generating a report on an overall state of an operation of the maintenance system (Col. 1, lines 9-32 via "The architecture includes a maintenance executive, indicated by reference numeral 10, which coordinates all processing within the system...The executive 10

communicates test status data to the host 12, for forwarding to other systems, or to the pilot of an aircraft housing the avionics system being tested. In a reconfigurable avionics system, the executive 1 also transmits information to a resource manager 18, to allow critical failures to be identified and eliminated by reconfiguration"; Note Examiner construes the recitation that the executive 10 coordinates all processing to convey the executive's action pertain to the overall maintenance system and, therefore, that the forwarding of test data by the executive will be a report on the overall state of an operation); and

a data transmission link (Fig. 1, item 14 and Col. 3, lines 9-32 via "standard maintenance bus 14") for providing a data connection between the plurality of equipment units and the central maintenance unit,

wherein the central maintenance unit is configured to make the report on the overall state of the operation available on the data transmission link (Col. 3, lines 9-32 via "standard military bus 20" and "The executive 10 communicates test status data to the host 12") and

wherein each the plurality of equipment units further include a detection circuit is for detecting, capturing, and transferring the report on the overall state of the operation from the data transmission link into the respective non-volatile memory unit after the report on the overall state of the operation is available on the data transmission link (Col. 6, lines 5-27 via "processor 70" is capable of performing the functions for which the detection circuit is claimed; Note that the language following the "for" clauses here, and throughout the claim language, are construed as statement of intended use. See MPEP

2111-2114. If such language is intended to limit the claim as not merely intended use, the claimed "for" clauses should be replaced with "configured" to clauses).

If the standard military bus 20 and the standard maintenance bus 14 and other communication lines shown in Fig. 1 are construed as other than constituting the same data transmission link, it is old and well known in to arrange communication buses as single or multiple buses as shown in paragraphs [0034] and [0039] of Barness (2004/0117443 A1; Note Barness is solely used for evidentiary purposes and accordingly is intentionally not listed above in the rejection heading as a reference under which the rejection is made).

Therefore, it would have been obvious to having ordinary skill in the art at the time of invention to modify the bus layout as disclosed by Wotzak et al. to be one single bus since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

**Regarding claim 11**, Wotzak et al. further discloses the system includes a subset of equipment units grouping at least some of the plurality of equipment units into a group of equipment units (Fig. 1 where item 16 groups multiple listings of item 28 into one group).

Wotzak et al. further discloses that the testing limitations as cited above with respect to claim 1 are stated to be performed on this level at Col. 3, lines 9-14 via “the testing architecture of the invention provides for control of testing operations at multiple levels; at an execution level that coordinates all testing within the system, at a

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subsystem or subassembly level, at a module (or board level), and at a component (or chip) level.”

**Regarding claims 12-13,** Wotzak further discloses a user interface (Fig. 1, item 12) linked to the central maintenance unit (Fig. 1, item 10) by the data transmission link, the user interface configured to display the report on the overall state of the operation to a user; wherein the report on the overall state of the operation is a post flight report that includes a log of all the fault messages that were received by the central maintenance unit during a flight of an aircraft (Also see Col. 3, lines 9-32 via “The architecture includes a maintenance executive, indicated by reference numeral 10, which coordinates all processing within the system...The executive 10 communicates test status data to the host 12, for forwarding to other systems, or to the pilot of an aircraft housing the avionics system being tested. In a reconfigurable avionics system, the executive 1 also transmits information to a resource manager 18, to allow critical failures to be identified and eliminated by reconfiguration”).

**Regarding claim 14,** Wotzak further discloses an external communications network, connected to the maintenance system, for sending the report on the overall state of the operation to a fleet management center (Col. 3, lines 9-32 via “The executive 10 communicates test status data to the host 12, for forwarding to other systems, or to the pilot of an aircraft housing the avionics system being tested. In a reconfigurable avionics system, the executive 1 also transmits information to a resource manager 18, to allow critical failures to be identified and eliminated by reconfiguration”).

Wotzak fails to explicitly disclose the external communications network is airborne, but wireless communications is notoriously well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the communications network as disclosed by Wotzak to be wireless as is notoriously well known in the art in order to facilitate efficient communication.

**Regarding claim 16**, wherein the central maintenance unit is configured to submit the report on the overall state of the operation after a flight to a user upon an instruction by a user (Col. 3, lines 9-32 via “the executive 10 communicates test status data to the host 12, for forwarding to other systems, or to the pilot of an aircraft housing the avionics system being tested”; Note because the reference’s system will submit a report to a pilot regardless of whether a user has instructed such a submission, it will do so when an instructed by a user; In other words, the claim reads on the reference because the CMU is not limited to a report submission only upon a user instruction).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as listed in the enclosed PTO-892 form. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIKHIL SRIRAMAN whose telephone number is (571)270-5797. The examiner can normally be reached on Monday through Friday, 7:30am-5:00pm, with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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